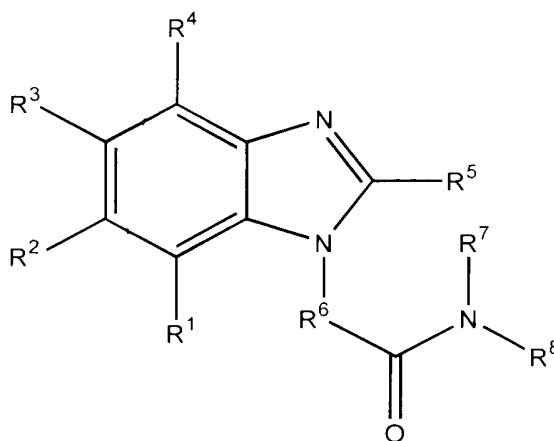


WE CLAIM:

1. A combinatorial library of two or more compounds of the formula:



5 wherein:

R¹, R², R³ and R⁴ are, independently, selected from the group consisting of a hydrogen atom, halo, hydroxy, protected hydroxy, cyano, C₁ to C₁₀ alkyl, C₁ to C₁₀ alkenyl, C₁ to C₁₀ alkynyl, C₁ to C₁₀ substituted alkyl, C₁ to C₁₀ substituted alkenyl, C₁ to C₁₀ substituted alkynyl, C₁ to C₁₀ alkoxy, C₁ to C₁₀ substituted alkoxy, C₁ to C₁₀ acyloxy, C₁ to C₁₀ acyl, C₁ to C₁₀ cycloalkyl, C₁ to C₁₀ substituted cycloalkyl, C₁ to C₁₀ cycloalkenyl, C₁ to C₁₀ substituted cycloalkenyl, heterocyclic ring, substituted
15 heterocyclic ring, C₁ to C₁₀ phenylalkyl, C₁ to C₁₀ substituted phenylalkyl, C₁ to C₁₀ heterocycloalkyl, C₁ to C₁₀ substituted heterocycloalkyl, phenyl, substituted phenyl, naphthyl, substituted naphthyl, cyclic C₁ to C₁₀ alkylene, substituted cyclic C₁ to C₁₀ alkylene, cyclic C

to C heteroalkylene, substituted cyclic C to C heteroalkylene, carboxy, protected carboxy, hydroxymethyl, protected hydroxymethyl, protected amino, (monosubstituted)amino, protected (monosubstituted)amino, 5 (disubstituted)amino, C₁ to C₄ alkylamino, C₁ to C₄ substituted alkylamino, carboxamide, protected carboxamide, C₁ to C₄ alkylthio, C₁ to C₄ substituted alkylthio, C₁ to C₄ alkylsulfonyl, C₁ to C₄ substituted alkylsulfonyl, C₁ to C₄ alkylsulfoxide, C₁ to C₄ substituted alkylsulfoxide, phenylthio, substituted phenylthio, phenylsulfoxide, substituted phenylsulfoxide, phenylsulfonyl, substituted phenylsulfonyl and the group consisting of (i) the formula -C(O)NR¹R², (ii) the formula -C(O)R³, (iii) the formula -NR¹R², (iv) the 15 formula -SR³, (v) the formula -OR³ and (vi) the formula -C(O)OR³, wherein R¹ and R² are, independently, selected from the group consisting of a hydrogen atom, C₁ to C₄ alkyl, C₁ to C₄ substituted alkyl, C₁ to C₄ alkenyl, C₁ to C₄ substituted alkenyl, phenyl, substituted phenyl, 20 naphthyl, substituted naphthyl, C₁ to C₄ phenylalkyl, C₁ to C₄ substituted phenylalkyl, C₁ to C₄ heterocycloalkyl, C₁ to C₄ substituted heterocycloalkyl, heteroaryl, substituted heteroaryl, heterocycle, substituted heterocycle, phenylsulfonyl, substituted phenylsulfonyl, 25 C₁ to C₄ alkylsulfonyl, C₁ to C₄ substituted alkylsulfonyl, C₁ to C₄ alkylaminocarbonyl, C₁ to C₄ substituted alkylaminocarbonyl, phenylaminocarbonyl, and substituted phenylaminocarbonyl;

R is selected from the group consisting of a hydrogen 30 atom, C₁ to C₄ alkyl, C₁ to C₄ substituted alkyl, phenyl, substituted phenyl, C₁ to C₄ phenylalkyl, C₁ to C₄ substituted phenylalkyl, C₁ to C₄ heterocycloalkyl, C₁ to C₄ substituted heterocycloalkyl, carboxy, protected

carboxy, cyano, protected (monosubstituted)amino,
(disubstituted)amino, C₁ to C₆ acyl, C₁ to C₆ substituted
acyl, C₁ to C₆ alkoxycarbonyl, C₁ to C₆ substituted
alkoxycarbonyl, heterocycle, substituted heterocycle,
5 naphthyl, substituted naphthyl, C₁ to C₆ cycloalkyl, C₁ to
C₆ substituted cycloalkyl, C₁ to C₆ cycloalkenyl and C₁ to
C₆ substituted cycloalkenyl;

R^b is the formula:

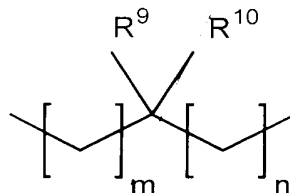
-D-W-E-

10 wherein:

W is absent or selected from the group
consisting of phenylene, substituted phenylene,
C₁ to C₆ cycloalkylene, C₁ to C₆ substituted
cycloalkylene, C₁ to C₆ cycloalkenylene, C₁ to C₆
15 substituted cycloalkenylene, arylene,
substituted arylene, heterocyclene, substituted
heterocyclene, heteroarylene and substituted
heteroarylene;

and D, which is directly attached to the
20 nitrogen depicted in the formula, and E, which
can be absent, are, independently, selected
from the group consisting of C₁ to C₆ alkylene,
C₁ to C₆ alkenylene, C₁ to C₆ alkynylene, C₁ to
C₆ substituted alkylene, C₁ to C₆ substituted
25 alkenylene, C₁ to C₆ substituted alkynylene, C₁
to C₆ cycloalkylene, C₁ to C₆ substituted
cycloalkylene, C₁ to C₆ cycloalkenylene, C₁ to C₆
substituted cycloalkenylene, C₁ to C₆
phenylalkylene, C₁ to C₆ substituted

phenylalkylene, C₁ to C₄ heterocycloalkylene
and C₁ to C₄ substituted heterocycloalkylene,
-NH- and the formula:



5 wherein R⁹ and R¹⁰ are, independently, selected
from the group consisting of a hydrogen atom, C₁
to C₄ alkyl, C₁ to C₄ alkenyl, C₁ to C₄
alkynyl, C₁ to C₄ substituted alkyl, C₁ to C₄
substituted alkenyl, C₁ to C₄ substituted
10 alkynyl, C₁ to C₄ acyl, C₁ to C₄ substituted
acyl, C₁ to C₄ cycloalkyl, C₁ to C₄ substituted
cycloalkyl, C₁ to C₄ cycloalkenyl, C₁ to C₄
substituted cycloalkenyl, a heterocyclic ring,
substituted heterocyclic ring, heteroaryl,
15 substituted heteroaryl, C₁ to C₄ phenylalkyl, C₁
to C₄ substituted phenylalkyl, C₁ to C₄
heterocycloalkyl, C₁ to C₄ substituted
heterocycloalkyl, C₁ to C₄ phenylalkoxy, C₁ to
C₄ substituted phenylalkoxy, phenyl,
20 substituted phenyl, naphthyl, substituted
naphthyl, cyclic C₁ to C₄ alkylene, substituted
cyclic C₁ to C₄ alkylene, cyclic C₁ to C₄
heteroalkylene, substituted cyclic C₁ to C₄
heteroalkylene, carboxy, protected carboxy,
25 hydroxymethyl and protected hydroxymethyl; and
m and n are, independently, 0, 1, 2, 3 or 4;
and

R and R' are, independently, selected from the group consisting of a functionalized resin, a hydrogen atom, C₁ to C₄ alkyl, C₁ to C₄ substituted alkyl, phenyl, substituted phenyl, heterocycle, substituted heterocycle, 5 C₁ to C₄ cycloalkyl, C₁ to C₄ substituted cycloalkyl, C₁ to C₄ cycloalkenyl, C₁ to C₄ substituted cycloalkenyl, C₁ to C₄ alkenyl, C₁ to C₄ substituted alkenyl, C₁ to C₄ phenylalkyl, C₁ to C₄ substituted phenylalkyl, C₁ to C₄ heterocycloalkyl and C₁ to C₄ substituted 10 heterocycloalkyl, C₁ to C₄ acyl, C₁ to C₄ substituted acyl, phenylsulfonyl, substituted phenylsulfonyl, C₁ to C₄ alkylsulfonyl, C₁ to C₄ substituted alkylsulfonyl, C₁ to C₄ alkylaminocarbonyl, C₁ to C₄ substituted alkylaminocarbonyl, phenylaminocarbonyl, substituted 15 phenylaminocarbonyl, C₁ to C₄ alkylaminothiocarbonyl, C₁ to C₄ substituted alkylaminothiocarbonyl, phenylaminothiocarbonyl and substituted phenylaminothiocarbonyl;

provided that, where R' is methylene, at least one of R¹ to R⁴ must be the formula -C(O)NR⁵R⁶; or

provided that, where R' is methylene, at least one of R¹ to R⁴ must be the formula -C(O)R⁷, wherein R⁷ is a heterocyclic ring or substituted heterocyclic ring, wherein said ring contains at least one nitrogen atom and 25 wherein said nitrogen atom is attached to the carbonyl carbon; or

a pharmaceutically acceptable salt of a compound thereof.

2. The combinatorial library of claim 1, wherein:

R, R, R' and R'' are, independently, selected from the group consisting of a hydrogen atom, halo, C₁ to C₄ alkyl, C₁ to C₄ substituted alkyl, carboxy, and the group consisting of (i) the formula -C(O)NR¹R² and (ii) the
5 formula -C(O)R³, wherein R¹ and R² are, independently, selected from the group consisting of a hydrogen atom, C₁ to C₄ alkyl, C₁ to C₄ substituted alkyl, C₁ to C₄ alkenyl, C₁ to C₄ substituted alkenyl, C₁ to C₄ phenylalkyl, C₁ to C₄ substituted phenylalkyl, C₁ to C₄
10 heterocycloalkyl, C₁ to C₄ substituted heterocycloalkyl, heteroaryl, substituted heteroaryl, heterocycle and substituted heterocycle.

3. The combinatorial library of claim 1, wherein:

R¹, R², and R³ are each a hydrogen atom and R' is selected from the group consisting of halo, C₁ to C₄ alkyl, C₁ to C₄ substituted alkyl, carboxy, and the group consisting of (i) the formula -C(O)NR¹R² and (ii) the formula
-C(O)R³, wherein R¹ and R² are, independently, selected
20 from the group consisting of a hydrogen atom, C₁ to C₄ alkyl, C₁ to C₄ substituted alkyl, C₁ to C₄ alkenyl, C₁ to C₄ substituted alkenyl, C₁ to C₄ phenylalkyl, C₁ to C₄ substituted phenylalkyl, C₁ to C₄ heterocycloalkyl, C₁ to C₄ substituted heterocycloalkyl, heteroaryl, substituted
25 heteroaryl, heterocycle and substituted heterocycle.

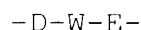
4. The combinatorial library of claim 1, wherein:

R is selected from the group consisting of a hydrogen atom, C₁ to C₄ alkyl, C₁ to C₄ substituted alkyl, phenyl, substituted phenyl, C₁ to C₄ phenylalkyl, C₁ to C₄

substituted phenylalkyl, C₁ to C₁₂ heterocycloalkyl, C₁ to C₁₂ substituted heterocycloalkyl, heterocycle, substituted heterocycle, C₁ to C₁₂ cycloalkyl and C₁ to C₁₂ substituted cycloalkyl.

5 5. The combinatorial library of claim 1, wherein:

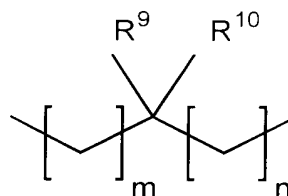
R' is the formula:



wherein:

10 W is absent or selected from the group consisting of phenylene, substituted phenylene, C₁ to C₁₂ cycloalkylene and C₁ to C₁₂ substituted cycloalkylene; and

15 D, which is directly attached to the nitrogen depicted in the formula, and E, which can be absent, are, independently, selected from the group consisting of C₁ to C₁₂ alkylene, C₁ to C₁₂ substituted alkylene, -NH- and the formula:



wherein:

20 R' and R'' are, independently, selected from the group consisting of a hydrogen atom, C₁ to C₁₂ alkyl, C₁ to C₁₂ substituted alkyl, C₁ to C₁₂ cycloalkyl, C₁ to C₁₂

substituted cycloalkyl, C₁ to C₆
phenylalkyl, C₁ to C₆ substituted
phenylalkyl, phenyl, substituted phenyl;
and m and n are independently 0, 1 or 2.

5 6. The combinatorial library of claim 1, wherein:

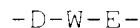
R¹ and R² are, independently, selected from a
functionalized resin and a hydrogen atom.

7. The combinatorial library of claim 1, wherein:

R¹, R², R³ and R⁴ are, independently, selected from the
10 group consisting of a hydrogen atom, halo, C₁ to C₆
alkyl, C₁ to C₆ substituted alkyl, carboxy, and the group
consisting of (i) the formula -C(O)NR³R⁴ and (ii) the
formula -C(O)R³, wherein R³ and R⁴ are, independently,
selected from the group consisting of a hydrogen atom, C₁
15 to C₆ alkyl, C₁ to C₆ substituted alkyl, C₁ to C₆
alkenyl, C₁ to C₆ substituted alkenyl, C₁ to C₆
phenylalkyl, C₁ to C₆ substituted phenylalkyl, C₁ to C₆
heterocycloalkyl, C₁ to C₆ substituted heterocycloalkyl,
heteroaryl, substituted heteroaryl, heterocycle and
20 substituted heterocycle;

R⁵ is selected from the group consisting of a hydrogen
atom, C₁ to C₆ alkyl, C₁ to C₆ substituted alkyl, phenyl,
substituted phenyl, C₁ to C₆ phenylalkyl, C₁ to C₆
substituted phenylalkyl, C₁ to C₆ heterocycloalkyl, C₁ to
25 C₆ substituted heterocycloalkyl, heterocycle, substituted
heterocycle, C₁ to C₆ cycloalkyl and C₁ to C₆ substituted
cycloalkyl;

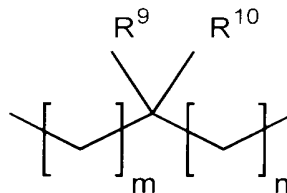
R' is the formula:



wherein:

5 W is absent or selected from the group consisting of phenylene, substituted phenylene, C₁ to C₁₀ cycloalkylene and C₁ to C₁₀ substituted cycloalkylene; and

10 D, which is directly attached to the nitrogen depicted in the formula, and E, which can be absent, are, independently, selected from the group consisting of C₁ to C₁₀ alkylene, C₁ to C₁₀ substituted alkylene, -NH- and the formula:



wherein:

15 R⁹ and R¹⁰ are, independently, selected from the group consisting of a hydrogen atom, C₁ to C₁₀ alkyl, C₁ to C₁₀ substituted alkyl, C₁ to C₁₀ cycloalkyl, C₁ to C₁₀ substituted cycloalkyl, C₁ to C₁₀ phenylalkyl, C₁ to C₁₀ substituted phenylalkyl, phenyl, substituted phenyl;
20 and m and n are, independently, 0, 1 or 2; and

R and Rⁿ are, independently, selected from a functionalized resin and a hydrogen atom.

8. The combinatorial library of claim 1, wherein Rⁿ is methylene, R¹, R² and R³ are each a hydrogen atom and R⁴ is the formula -C(O)NR¹¹R¹².

9. The combinatorial library of claim 1, wherein Rⁿ is methylene, R¹, R² and R³ are each a hydrogen atom and R⁴ is the formula -C(O)R¹³, wherein R¹³ is a heterocyclic ring or substituted heterocyclic ring, wherein said ring contains at least one nitrogen atom and wherein said nitrogen atom is attached to the carbonyl carbon.

10. The combinatorial library of claim 1, wherein Rⁿ is not methylene.

11. The combinatorial library of claim 1, wherein:

15 R¹, R² and R³ are each a hydrogen atom and R⁴ is the formula -C(O)NR¹¹R¹², wherein R¹¹ is selected from the group consisting of a hydrogen atom, methyl, ethyl and benzyl and R¹² is selected from the group consisting of a hydrogen atom, benzyl, 4-methoxyphenyl, 4-phenoxyphenyl, (1-ethyl-2-pyrrolidino)methyl, pyridin-2-ylmethyl, (2-(pyridin-2-yl)ethyl, methyl, 3,3,5-trimethylcyclohexyl, cyclohexyl, 3-(trifluoromethyl)benzyl, 6-indazolyl, 2-(ethoxycarbonyl)ethyl, ethoxycarbonylmethyl, 20 cyclooctyl, cyclopropyl, (N,N-diethylamino)ethyl, 3-(2-oxo-1-pyrrolidino)propyl, (1-ethyl-2-pyrrolidinyl)methyl, pyridin-4-ylmethyl, 3-(4-morpholino)propyl, 4-methylphenyl, butyl and 2-thiazolyl;

- R is selected from the group consisting of
- 3-phenoxyphenyl, 3-hydroxy-4-methoxyphenyl,
4-acetamidophenyl, 4-phenoxyphenyl, 4-bromo-2-thienyl,
4-pyridyl, 2-butyl, 4-chloro-3-nitrophenyl,
- 5 3-nitrophenyl, 2,3-dichlorophenyl, 2,5-difluorophenyl,
5-methyl-2-furyl, 4-chloro-3-fluorophenyl,
2-phenyl-4-imidazolyl, 5-nitro-2-furyl, 4-bromophenyl,
2-norbornen-5-yl, 6-nitropiperonyl,
2-chloro-5-nitrophenyl, 5-hydroxy-2-nitrophenyl,
- 10 3-hydroxyphenyl, 3,4-difluorophenyl,
4-dimethylaminophenyl, 2-thienyl, 4-cyanophenyl,
3-cyanophenyl, 4-nitrophenyl, 2-fluorophenyl,
4-carboxyphenyl, 2-bromophenyl,
2-chloro-3,4-dimethoxyphenyl, 3-thienyl, 4-quinolyl,
- 15 4-methyl-5-imidazolyl, 4-hydroxyphenyl,
2-ethyl-5-formyl-4-methylimidazolyl,
4-chloro-2-nitrophenyl, 3-pyridyl,
3,4-dimethyl-6-nitrophenyl, 5-chloro-2-nitrophenyl and
2-nitrophenyl;
- 20 R' is selected from the group consisting of methylene,
ethylidene, ethylene, propylene, pentylene,
isopentylidene, 3-aminocarbonylbutylidene,
2-methylthiopropylidene, isobutylidene, phenylmethylene,
benzylmethylene, cyclohexylethylidene,
- 25 4-chlorobenzylmethylene,
indol-3-ylethylidene, 4-trifluoroacetamidopentylidene,
3-guanidobutylidene, -CH CH NH- and
1,4-(cyclohexylene)-NH-;

and

- 30 R and R' are each a hydrogen atom.

12. The combinatorial library of claim 1, wherein:

R, R and Rⁱ are each a hydrogen atom and R' is the formula -C(O)R^j, wherein R^j is selected from the group consisting of

- 5 1,3,3-trimethyl-6-aza-6-bicyclo(3,2,1)octyl,
4-(4-fluorophenyl)-1-piperazino, 4-acetyl-1-piperazino,
morpholino, 2-methyl-4-(3-methylphenyl)-1-piperazino,
4-ethoxycarbonylpiperidino and N-methylhomopiperazino;

R is selected from the group consisting of

- 10 3-phenoxyphenyl, 3-hydroxy-4-methoxyphenyl,
4-acetamidophenyl, 4-phenoxyphenyl, 4-bromo-2-thienyl,
4-pyridyl, 2-butyl, 4-chloro-3-nitrophenyl,
3-nitrophenyl, 2,3-dichlorophenyl, 2,5-difluorophenyl,
5-methyl-2-furyl, 4-chloro-3-fluorophenyl,
15 2-phenyl-4-imidazolyl, 5-nitro-2-furyl, 4-bromophenyl,
2-norbornen-5-yl, 6-nitropiperonyl,
2-chloro-5-nitrophenyl, 5-hydroxy-2-nitrophenyl,
3-hydroxyphenyl, 3,4-difluorophenyl,
4-dimethylaminophenyl, 2-thienyl, 4-cyanophenyl,
20 3-cyanophenyl, 4-nitrophenyl, 2-fluorophenyl,
4-carboxyphenyl, 2-bromophenyl,
2-chloro-3,4-dimethoxyphenyl, 3-thienyl, 4-quinolyl,
4-methyl-5-imidazolyl, 4-hydroxyphenyl,
2-ethyl-5-formyl-4-methylimidazolyl,
25 4-chloro-2-nitrophenyl, 3-pyridyl,
3,4-dimethyl-6-nitrophenyl, 5-chloro-2-nitrophenyl and
2-nitrophenyl;

R' is selected from the group consisting of methylene,
ethylidene, ethylene, propylene, pentylene,

- 30 isopentylidene, 3-aminocarbonylbutylidene,
2-methylthiopropylidene, isobutylidene, phenylmethylene,

benzylmethylene, cyclohexylethylidene,
4-chlorobenzylmethylene,
indol-3-ylethylidene, 4-trifluoroacetamidopentylidene,
3-guanidobutylidene, -CH CH NH- and
5 1,4-(cyclohexylene)-NH-; and

R and R' are each a hydrogen atom.

13. The combinatorial library of claim 1, wherein:

R¹, R and R' are each a hydrogen atom and R' is the
formula -C(O)NR¹¹R¹², wherein R¹¹ is selected from the group
10 consisting of a hydrogen atom, methyl, ethyl and benzyl
and R¹² is selected from the group consisting of a
hydrogen atom, 2-(2-methoxyphenyl)ethyl,
(1-ethyl-2-pyrrolidinyl)methyl,
pyridin-2-ylmethyl, 2-methyl-5-chlorophenyl,
15 2-(pyridin-2-yl)ethyl, 1-ethyl-2-pyrrolidinylmethyl,
3,3,5-trimethylcyclohexyl, 3,4-methylenedioxyphenyl,
3-(trifluoromethyl)benzyl, pyridin-4-ylmethyl,
6-indazolyl, 2-(ethoxycarbonyl)ethyl, cyclooctyl,
cyclopropyl, benzyl, N,N-(diethylamino)ethyl,
20 3-(2-oxo-1-pyrrolidine)propyl, 3-(4-morpholino)propyl,
(ethoxycarbonyl)methyl and cyclohexyl;

R is selected from the group consisting of phenoxyphenyl,
4-hydroxy-3-methoxyphenyl, 3,4,5-trimethoxyphenyl,
3-hydroxy-4-methoxyphenyl, 4-acetamidophenyl,
25 4-phenoxyphenyl, 4-methoxyl-1-naphthyl,
4-bromo-2-thienyl, 4-pyridyl, isopropyl,
2-methylthioethyl, 4-chloro-3-nitrophenyl, 3-nitrophenyl,
4-t-butylphenyl, 2,3-dichlorophenyl,
3,5-bis(trifluoromethyl)phenyl, 2,5-difluorophenyl,

- 2-quinolyl, 2-chloro-3,4-dimethoxyphenyl,
5-methyl-2-furyl, 4-chloro-3-fluorophenyl,
2-phenyl-4-imidazolyl, 2-(ethoxycarbonyl)cyclopropyl,
5-nitro-2-furyl, 4-bromophenyl, cyclopropyl,
5 2-norbornen-5-yl, 6-nitropiperonyl,
2-chloro-5-nitrophenyl, 5-hydroxy-2-nitrophenyl,
3-hydroxyphenyl, 3,4-difluorophenyl,
4-dimethylaminophenyl, 4-methylthiophenyl,
4-(trifluoromethyl)phenyl, 2-thienyl,
10 2,3-dimethoxyphenyl, 3-ethoxy-4-hydroxyphenyl,
4-cyanophenyl, 3-cyanophenyl, 2-furyl, 4-nitrophenyl,
1-naphthyl, 2-methoxyphenyl, 4-isopropylphenyl, piperonyl,
2-fluorophenyl, 4-ethoxyphenyl and 2,4-dihydroxyphenyl;

- Rⁿ is selected from the group consisting of methylene,
15 ethylidene, ethylene, propylene, pentylene,
isopentylidene, 3-aminocarbonylbutylidene,
2-methylthiopropylidene, isobutylidene, phenylmethylenes,
benzylmethylenes, cyclohexylethylidene,
4-chlorobenzylmethylenes,
20 indol-3-ylethylidene, 4-trifluoroacetamidopentylidene,
3-guanidobutylidene, hydroxyethylidene,
2-aminocarbonylpropylidene, isopentylidene,
mercaptoethylidene, 4-hydroxybenzylmethylenes,
1,3-phenylene, 1,4-phenylene, 1,4-(phenylene)-NH-,
25 3,6-dioxaoctylene-NH-, -CH₂CH₂NH- and
1,4-(cyclohexylene)-NH-;

and

R and Rⁿ are each a hydrogen atom.

14. The combinatorial library of claim 1, wherein:

R, R and R¹ are each a hydrogen atom and R² is the formula -C(O)R³, wherein R³ is selected from the group consisting of

- 5 1,3,3-trimethyl-6-aza-6-bicyclo(3,2,1)octyl,
4-(4-fluorophenyl)-1-piperazino, 4-acetyl-1-piperazino,
piperazino, 2-methyl-4-(3-methylphenyl)-1-piperazino,
4-(ethoxycarbonyl)piperidino, N-methylhomopiperazino and
N,N'-diisopropylimidamino;
- 10 R is selected from the group consisting of phenoxyphenyl,
4-hydroxy-3-methoxyphenyl, 3,4,5-trimethoxyphenyl,
3-hydroxy-4-methoxyphenyl, 4-acetamidophenyl,
4-phenoxyphenyl, 4-methoxyl-1-naphthyl,
4-bromo-2-thienyl, 4-pyridyl, isopropyl,
- 15 2-methylthioethyl, 4-chloro-3-nitrophenyl, 3-nitrophenyl,
4-t-butylphenyl, 2,3-dichlorophenyl,
3,5-bis(trifluoromethyl)phenyl, 2,5-difluorophenyl,
2-quinolyl, 2-chloro-3,4-dimethoxylphenyl,
5-methyl-2-furyl, 4-chloro-3-fluorophenyl,
- 20 2-phenyl-4-imidazolyl, 2-(ethoxycarbonyl)cyclopropyl,
5-nitro-2-furyl, 4-bromophenyl, cyclopropyl,
2-norbornen-5-yl, 6-nitropiperonyl,
2-chloro-5-nitrophenyl, 5-hydroxy-2-nitrophenyl,
3-hydroxyphenyl, 3,4-difluorophenyl,
- 25 4-dimethylaminophenyl, 4-methylthiophenyl,
4-(trifluoromethyl)phenyl, 2-thienyl,
2,3-dimethoxyphenyl, 3-ethoxy-4-hydroxyphenyl,
4-cyanophenyl, 3-cyanophenyl, 2-furyl, 4-nitrophenyl,
1-naphthyl, 2-methoxyphenyl, 4-isopropylphenyl, piperonyl,
- 30 2-fluorophenyl, 4-ethoxyphenyl and 2,4-dihydroxyphenyl;

R' is selected from the group consisting of methylene,
 ethylidene, ethylene, propylene, pentylene,
 isopentylidene, 3-aminocarbonylbutylidene,
 2-methylthiopropylidene, isobutylidene, phenylmethylene,
 5 benzylmethylene, cyclohexylethylidene,
 4-chlorobenzylmethylene,
 indol-3-ylethylidene, 4-trifluoroacetamidopentylidene,
 3-guanidobutylidene, hydroxyethylidene,
 2-aminocarbonylpropylidene, isopentylidene,
 10 mercaptoethylidene, 4-hydroxybenzylmethylene,
 1,3-phenylene, 1,4-phenylene, 1,4-(phenylene)-NH-,
 3,6-dioxaoctylene-NH-, -CH CH NH- and
 1,4-(cyclohexylene)-NH-;

and

15 R and R'' are each a hydrogen atom.

15. The combinatorial library of claim 1, wherein

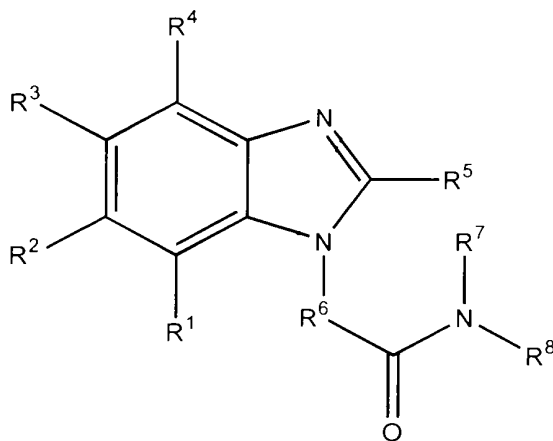
R¹, R², R³, R⁴ and R⁵ are each a hydrogen atom;

R' is the formula -C(O)NR⁶R⁷, wherein R⁶ is a hydrogen
 atom and R⁷ is selected from the group consisting of
 20 pyridin-2-ylmethyl and 3,3,5-trimethylcyclohexyl;

R is selected from the group consisting of
 4-N,N-dimethylaminophenyl, 5-chloro-2-nitrophenyl,
 4-bromo-2-thienyl, 2-butyl, 5-nitro-2-furyl,
 4-bromophenyl, 2-thienyl, 3-thienyl, 3-cyanophenyl,
 25 4-cyanophenyl, 4-quinolyl and 4-hydroxyphenyl; and

R' is methylene.

16. A single compound of the formula:



wherein:

R¹, R², R³ and R⁴ are, independently, selected from the
 5 group consisting of a hydrogen atom, halo, hydroxy,
 protected hydroxy, cyano, C₁ to C₄ alkyl, C₁ to C₄
 alkenyl, C₁ to C₄ alkynyl, C₁ to C₄ substituted alkyl, C
 to C₄ substituted alkenyl, C₁ to C₄ substituted alkynyl,
 C₁ to C₄ alkoxy, C₁ to C₄ substituted alkoxy, C₁ to C₄
 10 acyloxy, C₁ to C₄ acyl, C₁ to C₄ cycloalkyl, C₁ to C₄
 substituted cycloalkyl, C₁ to C₄ cycloalkenyl, C₁ to C₄
 substituted cycloalkenyl, heterocyclic ring, substituted
 heterocyclic ring, C₁ to C₄ phenylalkyl, C₁ to C₄
 substituted phenylalkyl, C₁ to C₄ heterocycloalkyl, C₁ to
 15 C₄ substituted heterocycloalkyl, phenyl, substituted
 phenyl, naphthyl, substituted naphthyl, cyclic C₁ to C₄
 alkylene, substituted cyclic C₁ to C₄ alkylene, cyclic C

- to C heteroalkylene, substituted cyclic C₁ to C₆ heteroalkylene, carboxy, protected carboxy, hydroxymethyl, protected hydroxymethyl, protected amino, (monosubstituted)amino, protected (monosubstituted)amino, 5 (disubstituted)amino, C₁ to C₁₀ alkylamino, C₁ to C₁₀ substituted alkylamino, carboxamide, protected carboxamide, C₁ to C₁₀ alkylthio, C₁ to C₁₀ substituted alkylthio, C₁ to C₁₀ alkylsulfonyl, C₁ to C₁₀ substituted alkylsulfonyl, C₁ to C₁₀ alkylsulfoxide, C₁ to C₁₀ 10 substituted alkylsulfoxide, phenylthio, substituted phenylthio, phenylsulfoxide, substituted phenylsulfoxide, phenylsulfonyl, substituted phenylsulfonyl and the group consisting of (i) the formula -C(O)NR¹¹R¹², (ii) the formula -C(O)R¹¹, (iii) the formula -NR¹¹R¹², (iv) the 15 formula -SR¹¹, (v) the formula -OR¹¹ and (vi) the formula -C(O)OR¹¹, wherein R¹¹ and R¹² are, independently, selected from the group consisting of a hydrogen atom, C₁ to C₁₀ alkyl, C₁ to C₁₀ substituted alkyl, C₁ to C₁₀ alkenyl, C₁ to C₁₀ substituted alkenyl, phenyl, substituted phenyl, 20 naphthyl, substituted naphthyl, C₁ to C₁₀ phenylalkyl, C₁ to C₁₀ substituted phenylalkyl, C₁ to C₁₀ heterocycloalkyl, C₁ to C₁₀ substituted heterocycloalkyl, heteroaryl, substituted heteroaryl, heterocycle, substituted heterocycle, phenylsulfonyl, substituted phenylsulfonyl, 25 C₁ to C₁₀ alkylsulfonyl, C₁ to C₁₀ substituted alkylsulfonyl, C₁ to C₁₀ alkylaminocarbonyl, C₁ to C₁₀ substituted alkylaminocarbonyl, phenylaminocarbonyl and substituted phenylaminocarbonyl;

- R¹ is selected from the group consisting of a hydrogen 30 atom, C₁ to C₁₀ alkyl, C₁ to C₁₀ substituted alkyl, phenyl, substituted phenyl, C₁ to C₁₀ phenylalkyl, C₁ to C₁₀ substituted phenylalkyl, C₁ to C₁₀ heterocycloalkyl, C₁ to C₁₀ substituted heterocycloalkyl, carboxy, protected

carboxy, cyano, protected (monosubstituted) amino,
(disubstituted) amino, C₁ to C₄ acyl, C₁ to C₄ substituted
acyl, C₁ to C₄ alkoxy carbonyl, C₁ to C₄ substituted
alkoxy carbonyl, heterocycle, substituted heterocycle,
5 naphthyl, substituted naphthyl, C₁ to C₄ cycloalkyl, C₁ to
C₄ substituted cycloalkyl, C₁ to C₄ cycloalkenyl and C₁ to
C₄ substituted cycloalkenyl;

R' is the formula:

-D-W-E-

10

wherein:

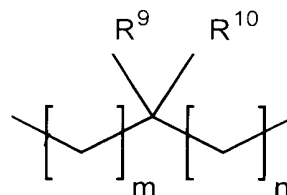
15

W is absent or selected from the group
consisting of phenylene, substituted phenylene,
C₁ to C₄ cycloalkylene, C₁ to C₄ substituted
cycloalkylene, C₁ to C₄ cycloalkenylene, C₁ to C₄
substituted cycloalkenylene, arylene,
substituted arylene, heterocyclene, substituted
heterocyclene, heteroarylene and substituted
heteroarylene;

20

and D, which is directly attached to the
nitrogen depicted in the formula, and E, which
can be absent, are independently selected from
the group consisting of C₁ to C₄ alkylene, C₁ to
C₄ alkenylene, C₁ to C₄ alkynylene, C₁ to C₄
substituted alkylene, C₁ to C₄ substituted
25 alkenylene, C₁ to C₄ substituted alkynylene, C₁
to C₄ cycloalkylene, C₁ to C₄ substituted
cycloalkylene, C₁ to C₄ cycloalkenylene, C₁ to C₄
substituted cycloalkenylene, C₁ to C₄
phenylalkylene, C₁ to C₄ substituted

phenylalkylene, C₁ to C₄ heterocycloalkylene
and C₁ to C₄ substituted heterocycloalkylene,
-NH- and the formula:



5 wherein R⁹ and R¹⁰ are, independently, selected
from the group consisting of a hydrogen atom, C₁
to C₄ alkyl, C₁ to C₄ alkenyl, C₁ to C₄
alkynyl, C₁ to C₄ substituted alkyl, C₁ to C₄
10 substituted alkenyl, C₁ to C₄ substituted
alkynyl, C₁ to C₄ acyl, C₁ to C₄ substituted
acyl, C₁ to C₄ cycloalkyl, C₁ to C₄ substituted
cycloalkyl, C₁ to C₄ cycloalkenyl, C₁ to C₄
substituted cycloalkenyl, a heterocyclic ring,
substituted heterocyclic ring, heteroaryl,
15 substituted heteroaryl, C₁ to C₄ phenylalkyl, C₁
to C₄ substituted phenylalkyl, C₁ to C₄
heterocycloalkyl, C₁ to C₄ substituted
heterocycloalkyl, C₁ to C₄ phenylalkoxy, C₁ to
C₄ substituted phenylalkoxy, phenyl,
20 substituted phenyl, naphthyl, substituted
naphthyl, cyclic C₁ to C₄ alkylene, substituted
cyclic C₁ to C₄ alkylene, cyclic C₁ to C₄
heteroalkylene, substituted cyclic C₁ to C₄
heteroalkylene, carboxy, protected carboxy,
25 hydroxymethyl and protected hydroxymethyl; and
m and n are, independently, 0, 1, 2, 3 or 4;
and

R and R' are, independently, selected from the group consisting of a functionalized resin, a hydrogen atom, C₁ to C₆ alkyl, C₁ to C₆ substituted alkyl, phenyl, substituted phenyl, heterocycle, substituted heterocycle,
 5 C₁ to C₆ cycloalkyl, C₁ to C₆ substituted cycloalkyl, C₁ to C₆ cycloalkenyl, C₁ to C₆ substituted cycloalkenyl, C₁ to C₆ alkenyl, C₁ to C₆ substituted alkenyl, C₁ to C₆ phenylalkyl, C₁ to C₆ substituted phenylalkyl, C₁ to C₆ heterocycloalkyl and C₁ to C₆ substituted
 10 heterocycloalkyl, C₁ to C₆ acyl, C₁ to C₆ substituted acyl, phenylsulfonyl, substituted phenylsulfonyl, C₁ to C₆ alkylsulfonyl, C₁ to C₆ substituted alkylsulfonyl, C₁ to C₆ alkylaminocarbonyl, C₁ to C₆ substituted alkylaminocarbonyl, phenylaminocarbonyl, substituted
 15 phenylaminocarbonyl, C₁ to C₆ alkylaminothiocarbonyl, C₁ to C₆ substituted alkylaminothiocarbonyl, phenylaminothiocarbonyl and substituted phenylaminothiocarbonyl;

provided that, where R' is methylene, at least one of R₁
 20 to R₆ must be the formula -C(O)NR¹R²; or

provided that, where R' is methylene, at least one of R₁
 to R₆ must be the formula -C(O)R³, wherein R³ is a
 heterocyclic ring or substituted heterocyclic ring,
 wherein said ring contains at least one nitrogen atom and
 25 wherein said nitrogen atom is attached to the carbonyl
 carbon; or

a pharmaceutically acceptable salt of a compound thereof.

17. The single compound of claim 16, wherein:

R^1 , R^2 , R^3 and R^4 are, independently, selected from the group consisting of a hydrogen atom, halo, C_1 to C_{12} alkyl, C_1 to C_{12} substituted alkyl, carboxy, and the group consisting of (i) the formula $-C(O)NR^5R^6$ and (ii) the formula $-C(O)R^7$, wherein R^5 and R^6 are, independently, selected from the group consisting of a hydrogen atom, C_1 to C_{12} alkyl, C_1 to C_{12} substituted alkyl, C_1 to C_{12} alkenyl, C_1 to C_{12} substituted alkenyl, C_1 to C_{12} phenylalkyl, C_1 to C_{12} substituted phenylalkyl, C_1 to C_{12} heterocycloalkyl, C_1 to C_{12} substituted heterocycloalkyl, heteroaryl, substituted heteroaryl, heterocycle and substituted heterocycle.

18. The single compound of claim 16, wherein:

R^1 , R^2 , and R^3 are each a hydrogen atom and R^4 is selected from the group consisting of halo, C_1 to C_{12} alkyl, C_1 to C_{12} substituted alkyl, carboxy, and the group consisting of (i) the formula $-C(O)NR^5R^6$ and (ii) the formula $-C(O)R^7$, wherein R^5 and R^6 are, independently, selected from the group consisting of a hydrogen atom, C_1 to C_{12} alkyl, C_1 to C_{12} substituted alkyl, C_1 to C_{12} alkenyl, C_1 to C_{12} substituted alkenyl, C_1 to C_{12} phenylalkyl, C_1 to C_{12} substituted phenylalkyl, C_1 to C_{12} heterocycloalkyl, C_1 to C_{12} substituted heterocycloalkyl, heteroaryl, substituted heteroaryl, heterocycle and substituted heterocycle.

19. The single compound of claim 16, wherein:

R is selected from the group consisting of a hydrogen atom, C_1 to C_{12} alkyl, C_1 to C_{12} substituted alkyl, phenyl, substituted phenyl, C_1 to C_{12} phenylalkyl, C_1 to C_{12}

123
~~120~~

substituted phenylalkyl, C₁ to C₄ heterocycloalkyl, C₁ to C₄ substituted heterocycloalkyl, heterocycle, substituted heterocycle, C₁ to C₄ cycloalkyl and C₁ to C₄ substituted cycloalkyl.

5 20. The single compound of claim 16, wherein:

R' is the formula:

-D-W-E-

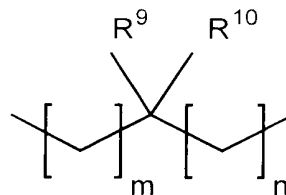
wherein:

10

W is absent or selected from the group consisting of phenylene, substituted phenylene, C₁ to C₄ cycloalkylene and C₁ to C₄ substituted cycloalkylene; and

15

D, which is directly attached to the nitrogen depicted in the formula, and E, which can be absent, are, independently, selected from the group consisting of C₁ to C₄ alkylene, C₁ to C₄ substituted alkylene, -NH- and the formula:



wherein:

20

R⁹ and R¹⁰ are, independently, selected from the group consisting of a hydrogen atom, C₁ to C₄ alkyl, C₁ to C₄ substituted

alkyl, C₁ to C₆ cycloalkyl, C₁ to C₆
substituted cycloalkyl, C₁ to C₆
phenylalkyl, C₁ to C₆ substituted
phenylalkyl, phenyl, substituted phenyl;
and m and n are, independently, 0, 1 or 2.

21. The single compound of claim 16, wherein:

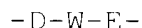
R¹ and R² are each a hydrogen atom.

22. The single compound of claim 16, wherein:

R¹, R², R³ and R⁴ are, independently, selected from the
10 group consisting of a hydrogen atom, halo, C₁ to C₆
alkyl, C₁ to C₆ substituted alkyl, carboxy, and the group
consisting of (i) the formula -C(O)NR³R⁴ and (ii) the
formula -C(O)R³, wherein R³ and R⁴ are, independently,
selected from the group consisting of a hydrogen atom, C₁
15 to C₆ alkyl, C₁ to C₆ substituted alkyl, C₁ to C₆
alkenyl, C₁ to C₆ substituted alkenyl, C₁ to C₆
phenylalkyl, C₁ to C₆ substituted phenylalkyl, C₁ to C₆
heterocycloalkyl, C₁ to C₆ substituted heterocycloalkyl,
heteroaryl, substituted heteroaryl, heterocycle and
20 substituted heterocycle;

R⁵ is selected from the group consisting of a hydrogen
atom, C₁ to C₆ alkyl, C₁ to C₆ substituted alkyl, phenyl,
substituted phenyl, C₁ to C₆ phenylalkyl, C₁ to C₆
substituted phenylalkyl, C₁ to C₆ heterocycloalkyl, C₁ to
25 C₆ substituted heterocycloalkyl, heterocycle, substituted
heterocycle, C₁ to C₆ cycloalkyl and C₁ to C₆ substituted
cycloalkyl;

R' is the formula:



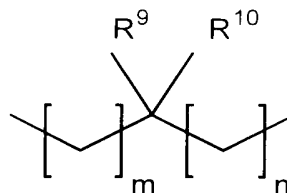
wherein:

5

W is absent or selected from the group consisting of phenylene, substituted phenylene, C₁ to C₄ cycloalkylene and C₁ to C₄ substituted cycloalkylene; and

10

D, which is directly attached to the nitrogen depicted in the formula, and E, which can be absent, are, independently, selected from the group consisting of C₁ to C₄ alkylene, C₁ to C₄ substituted alkylene, -NH- and the formula:



wherein:

15

R' and R¹ are, independently, selected from the group consisting of a hydrogen atom, C₁ to C₄ alkyl, C₁ to C₄ substituted alkyl, C₁ to C₄ cycloalkyl, C₁ to C₄ substituted cycloalkyl, C₁ to C₄

20

phenylalkyl, C₁ to C₄ substituted phenylalkyl, phenyl, substituted phenyl; and m and n are independently 0, 1 or 2; and

5 22. R and R' are each a hydrogen atom.

23. The single compound of claim 16, wherein R' is methylene, R¹, R² and R³ are each a hydrogen atom and R is the formula -C(O)NR⁴R⁵.

5 24. The single compound of claim 16, wherein R' is methylene, R¹, R² and R³ are each a hydrogen atom and R is the formula -C(O)R⁶, wherein R⁶ is a heterocyclic ring or substituted heterocyclic ring, wherein said ring contains at least one nitrogen atom and wherein said nitrogen atom
10 is attached to the carbonyl carbon.

25. The single compound of claim 16, wherein R' is not methylene.

26. The single compound of claim 16, wherein:

R¹, R² and R³ are each a hydrogen atom and R is the
15 formula -C(O)NR⁴R⁵, wherein wherein R⁴ is selected from the group consisting of a hydrogen atom, methyl, ethyl and benzyl and R⁵ is selected from the group consisting of a hydrogen atom, benzyl, 4-methoxyphenyl, 4-phenoxyphenyl, (1-ethyl-2-pyrrolidino)methyl,
20 pyridin-2-ylmethyl, 2-(pyridin-2-yl)ethyl, methyl, 3,3,5-trimethylcyclohexyl, cyclohexyl, 3-(trifluoromethyl)benzyl, 6-indazolyl, 2-(ethoxycarbonyl)ethyl, ethoxycarbonylmethyl, cyclooctyl, cyclopropyl, (N,N-diethylamino)ethyl,
25 3-(2-oxo-1-pyrrolidino)propyl, (1-ethyl-2-pyrrolidinyl)methyl, pyridin-4-ylmethyl, 3-(4-morpholino)propyl, 4-methylphenyl, butyl and 2-thiazolyl;

- R is selected from the group consisting of
3-phenoxyphenyl, 3-hydroxy-4-methoxyphenyl,
4-acetamidophenyl, 4-phenoxyphenyl, 4-bromo-2-thienyl,
4-pyridyl, 2-butyl, 4-chloro-3-nitrophenyl,
5 3-nitrophenyl, 2,3-dichlorophenyl, 2,5-difluorophenyl,
5-methyl-2-furyl, 4-chloro-3-fluorophenyl,
2-phenyl-4-imidazolyl, 5-nitro-2-furyl, 4-bromophenyl,
2-norbornen-5-yl, 6-nitropiperonyl,
2-chloro-5-nitrophenyl, 5-hydroxy-2-nitrophenyl,
10 3-hydroxyphenyl, 3,4-difluorophenyl,
4-dimethylaminophenyl, 2-thienyl, 4-cyanophenyl,
3-cyanophenyl, 4-nitrophenyl, 2-fluorophenyl,
4-carboxyphenyl, 2-bromophenyl,
2-chloro-3,4-dimethoxyphenyl, 3-thienyl, 4-quinolyl,
15 4-methyl-5-imidazolyl, 4-hydroxyphenyl,
2-ethyl-5-formyl-4-methylimidazolyl,
4-chloro-2-nitrophenyl, 3-pyridyl,
3,4-dimethyl-6-nitrophenyl, 5-chloro-2-nitrophenyl and
2-nitrophenyl;
- 20 R⁶ is selected from the group consisting of
methylenemethylene, ethylene, propylene, pentylene,
isobutylenemethylene, 3-aminocarbonylpropylenemethylene,
2-methylthioethylenemethylene, isopropylenemethylene,
phenylenemethylene, benzylenemethylene,
25 cyclohexylenemethylene, 4-chlorobenzylenemethylene,
indol-3-ylmethylenemethylene,
4-trifluoroacetamidobutylenemethylene,
3-guanidopropylenemethylene, -CH=CH-NH- and
1-cyclohexylene-4-NH-; and
- 30 R and R⁷ are each a hydrogen atom.

27. The single compound of claim 10, wherein:

R^1 , R^2 and R^3 are each a hydrogen atom and R^4 is the formula $-C(O)R^5$, wherein R^5 is selected from the group consisting of

- 5 1,3,3-trimethyl-6-aza-6-bicyclo(3,2,1)octyl,
4-(4-fluorophenyl)-1-piperazino, 4-acetyl-1-piperazino,
morpholino, 2-methyl-4-(3-methylphenyl)-1-piperazino,
4-ethoxycarbonylpiperidino and N-methylhomopiperazino;

R^6 is selected from the group consisting of

- 10 3-phenoxyphenyl, 3-hydroxy-4-methoxyphenyl,
4-acetamidophenyl, 4-phenoxyphenyl, 4-bromo-2-thienyl,
4-pyridyl, 2-butyl, 4-chloro-3-nitrophenyl,
3-nitrophenyl, 2,3-dichlorophenyl, 2,5-difluorophenyl,
5-methyl-2-furyl, 4-chloro-3-fluorophenyl,
15 2-phenyl-4-imidazolyl, 5-nitro-2-furyl, 4-bromophenyl,
2-norbornen-5-yl, 6-nitropiperonyl,
2-chloro-5-nitrophenyl, 5-hydroxy-2-nitrophenyl,
3-hydroxyphenyl, 3,4-difluorophenyl,
4-dimethylaminophenyl, 2-thienyl, 4-cyanophenyl,
20 3-cyanophenyl, 4-nitrophenyl, 2-fluorophenyl,
4-carboxyphenyl, 2-bromophenyl,
2-chloro-3,4-dimethoxyphenyl, 3-thienyl, 4-quinolyl,
4-methyl-5-imidazolyl, 4-hydroxyphenyl,
2-ethyl-5-formyl-4-methylimidazolyl,
25 4-chloro-2-nitrophenyl, 3-pyridyl,
3,4-dimethyl-6-nitrophenyl, 5-chloro-2-nitrophenyl and
2-nitrophenyl;

R^7 is selected from the group consisting of

- methylenemethylene, ethylene, propylene, pentylene,
30 isobutylmethylenemethylene, 3-aminocarbonylpropylmethylenemethylene,

- 2-methylthioethylmethylene, isopropylmethylene,
phenylmethylene, benzylmethylene,
cyclohexylmethylmethylene, 4-chlorobenzylmethylene,
indol-3-ylmethylmethylene,
5 4-trifluoroacetamidobutylmethylene,
3-guanidopropylmethylene, -CH CH NH- and
1-cyclohexylene-4-NH-; and

R and R' are each a hydrogen atom.

28. The single compound of claim 16, wherein:

- 10 R, R' and R'' are each a hydrogen atom and R''' is the
formula -C(O)NR''R''', wherein R'' is selected from the group
consisting of a hydrogen atom, methyl, ethyl and benzyl
and R''' is selected from the group consisting of a
hydrogen atom, 2-(2-methoxyphenyl)ethyl,
15 (1-ethyl-2-pyrrolidino)methyl,
pyridin-2-ylmethyl, 2-methyl-5-chlorophenyl,
(2-(pyridin-2-yl)ethyl), 1-ethyl-2-pyrrolidinylmethyl,
3,3,5-trimethylcyclohexyl, 3,4-methylenedioxyphenyl,
3-(trifluoromethyl)benzyl, pyridin-4-ylmethyl,
20 6-indazolyl, 2-(ethoxycarbonyl)ethyl, cyclooctyl,
cyclopropyl, benzyl, N,N-(diethylamino)ethyl,
3-(2-oxo-1-pyrrolidine)propyl, 3-(4-morpholino)propyl,
(ethoxycarbonyl)methyl and cyclohexyl;

- R is selected from the group consisting of phenoxyphenyl,
25 4-hydroxy-3-methoxyphenyl, 3,4,5-trimethoxyphenyl,
3-hydroxy-4-methoxyphenyl, 4-acetamidophenyl,
4-phenoxyphenyl, 4-methoxyl-1-naphthyl,
4-bromo-2-thienyl, 4-pyridyl, isopropyl,
2-methylthioethyl, 4-chloro-3-nitrophenyl, 3-nitrophenyl,
30 4-t-butylphenyl, 2,3-dichlorophenyl,

- 3,5-bis(trifluoromethyl)phenyl, 2,5-difluorophenyl,
2-quinolyl, 2-chloro-3,4-dimethoxyphenyl,
5-methyl-2-furyl, 4-chloro-3-fluorophenyl,
2-phenyl-4-imidazolyl, 2-(ethoxycarbonyl)cyclopropyl,
5 5-nitro-2-furyl, 4-bromophenyl, cyclopropyl,
2-norbornen-5-yl, 6-nitropiperonyl,
2-chloro-5-nitrophenyl, 5-hydroxy-2-nitrophenyl,
3-hydroxyphenyl, 3,4-difluorophenyl,
4-dimethylaminophenyl, 4-methylthiophenyl,
10 4-(trifluoromethyl)phenyl, 2-thienyl,
2,3-dimethoxyphenyl, 3-ethoxy-4-hydroxyphenyl,
4-cyanophenyl, 3-cyanophenyl, 2-furyl, 4-nitrophenyl,
1-naphthyl, 2-methoxyphenyl, 4-isopropylphenyl, piperonyl,
2-fluorophenyl, 4-ethoxyphenyl and 2,4-dihydroxyphenyl;
- 15 Rⁿ is selected from the group consisting of methylene,
ethylidene, ethylene, propylene, pentylene,
isopentylidene, 3-aminocarbonylbutylidene,
2-methylthiopropylidene, isobutylidene, phenylmethylene,
benzylmethylene, cyclohexylethylidene,
20 4-chlorobenzylmethylene,
indol-3-ylethylidene, 4-trifluoroacetamidopentylidene,
3-guanidobutylidene, hydroxyethylidene,
2-aminocarbonylpropylidene, isopentylidene,
mercaptoethylidene, 4-hydroxybenzylmethylene,
25 1,3-phenylene, 1,4-phenylene, 1,4-(phenylene)-NH-,
3,6-dioxaoctylene-NH-, -CH CH NH- and
1,4-(cyclohexylene)-NH-;

and

R and Rⁿ are each a hydrogen atom.

29. The single compound of claim 16, wherein:

R, R and R are each a hydrogen atom and R is the formula -C(O)R, wherein R is selected from the group consisting of

- 5 1,3,3-trimethyl-6-aza-6-bicyclo(3,2,1)octyl,
4-(4-fluorophenyl)-1-piperazino, 4-acetyl-1-piperazino,
piperazino, 2-methyl-4-(3-methylphenyl)-1-piperazino,
4-(ethoxycarbonyl)piperidino, N-methylhomopiperazino and
N,N'-diisopropylimidamino;
- 10 R is selected from the group consisting of phenoxyphenyl,
4-hydroxy-3-methoxyphenyl, 3,4,5-trimethoxyphenyl,
3-hydroxy-4-methoxyphenyl, 4-acetamidophenyl,
4-phenoxyphenyl, 4-methoxyl-1-naphthyl,
4-bromo-2-thienyl, 4-pyridyl, isopropyl,
- 15 2-methylthioethyl, 4-chloro-3-nitrophenyl, 3-nitrophenyl,
4-t-butylphenyl, 2,3-dichlorophenyl,
3,5-bis(trifluoromethyl)phenyl, 2,5-difluorophenyl,
2-quinolyl, 2-chloro-3,4-dimethoxylphenyl,
5-methyl-2-furyl, 4-chloro-3-fluorophenyl,
- 20 2-phenyl-4-imidazolyl, 2-(ethoxycarbonyl)cyclopropyl,
5-nitro-2-furyl, 4-bromophenyl, cyclopropyl,
2-norbornen-5-yl, 6-nitropiperonyl,
2-chloro-5-nitrophenyl, 5-hydroxy-2-nitrophenyl,
3-hydroxyphenyl, 3,4-difluorophenyl,
- 25 4-dimethylaminophenyl, 4-methylthiophenyl,
4-(trifluoromethyl)phenyl, 2-thienyl,
2,3-dimethoxyphenyl, 3-ethoxy-4-hydroxyphenyl,
4-cyanophenyl, 3-cyanophenyl, 2-furyl, 4-nitrophenyl,
1-naphthyl, 2-methoxyphenyl, 4-isopropylphenyl, piperonyl,
- 30 2-fluorophenyl, 4-ethoxyphenyl and 2,4-dihydroxyphenyl;

R' is selected from the group consisting of methylene, ethylidene, ethylene, propylene, pentylene, isopentylidene, 3-aminocarbonylbutylidene, 2-methylthiopropylidene, isobutylidene, phenylmethylene, 5 benzylmethylene, cyclohexylethylidene, 4-chlorobenzylmethylene, indol-3-ylethylidene, 4-trifluoroacetamidopentylidene, 3-guanidobutylidene, hydroxyethylidene, 2-aminocarbonylpropylidene, isopentylidene, 10 mercaptoethylidene, 4-hydroxybenzylmethylene, 1,3-phenylene, 1,4-phenylene, 1,4-(phenylene)-NH-, 3,6-dioxaoctylene-NH-, -CH₂CH₂NH- and 1,4-(cyclohexylene)-NH-;

and

15 R¹ and R² are each a hydrogen atom.

30. The single compound of claim 16, wherein

R¹, R², R³, R⁴ and R⁵ are each a hydrogen atom;

R⁶ is the formula -C(O)NR¹¹R¹², wherein R¹¹ is a hydrogen atom and R¹² is selected from the group consisting of 20 pyridin-2-ylmethyl and 3,3,5-trimethylcyclohexyl;

R⁷ is selected from the group consisting of 4-N,N-dimethylaminophenyl, 5-chloro-2-nitrophenyl, 4-bromo-2-thienyl, 2-butyl, 5-nitro-2-furyl, 4-bromophenyl, 2-thienyl, 3-thienyl, 3-cyanophenyl, 25 4-cyanophenyl, 4-quinolyl and 4-hydroxyphenyl; and

R⁸ is methylene.

31. A method of preparing a benzimidazole derivative compound, comprising:

- (a) coupling a first compound having a substituent of the formula $\text{-NH-C(O)-variable group-NH}$ with a benzene compound that is substituted with a nitro group and a halo group in an ortho relationship on the benzene ring, the benzene compound optionally substituted with a variable group at one or more of the remaining 4 positions of the benzene ring, resulting in a benzene compound substituted with a nitro group and a monosubstituted amino group in an ortho relationship on the benzene ring;
- (b) reducing the nitro group of the benzene compound resulting from step (a); and
- (c) coupling the compound resulting from step (b) with an aldehyde compound, resulting in a benzimidazole derivative compound.

32. The method of claim 31, wherein said first compound is attached to solid support.

33. The method of claim 31, wherein said variable group on said benzene compound in step (a) is a carboxyl.

34. The method of claim 33, wherein said carboxyl group is coupled with a monosubstituted amine compound, a disubstituted amine compound, a cyclic imino compound or an alcohol compound.